

IN THE CLAIMS:

Please amend Claims 1, 2, 11, 17, 22 and 25, as follows. All claims in the application are being reproduced below in accordance with current U.S. Patent and Trademark Office requirements.

1. (Currently Amended) An absorption belt capable of absorbing an object, comprising:

- a base layer;
- an insulating layer on said base layer;
- a plurality of electrodes ~~arranged~~ embedded alternately with positive and negative ~~in with respect to~~ said insulating layer; and
- a plurality of absorption layers for covering each of said electrodes, at least two of said absorption layers having different volume resistivities, said plurality of absorption layers including a first absorption layer directly ~~covering disposed on~~ said plurality of electrodes and said insulating layer and a second absorption layer disposed above said first absorption layer, said second absorption layer having a volume resistivity Ra2 smaller than a volume resistivity Ra1 of said first absorption layer, a volume resistivity of a resin which is a main ingredient of said second absorption layer before a control of resistance being $1.0 \times 10^{16} \Omega \cdot \text{cm}$ or less.

2. (Currently Amended) An absorption belt capable of absorbing an object, comprising:

- a base layer;

an insulating layer on said base layer;

a plurality of electrodes embedded ~~arranged~~ alternately with positive and negative ~~in with respect to~~ said insulating layer; and

a plurality of absorption layers for covering each of said electrodes, at least two of said absorption layers having different volume resistivities and including a first absorption layer directly covering ~~disposed on~~ said plurality of electrodes and said insulating layer and a second absorption layer disposed above said first absorption layer, said second absorption layer having a volume resistivity Ra2 smaller than a volume resistivity Ra1 of said first absorption layer, an uppermost layer of said absorption layers including a fluoride resin.

3. (Original) The absorption belt according to claim 1, wherein said volume resistivity Ra1 of said first absorption layer directly disposed on each of said electrodes is within the range of $1.0 \times 10^{11} \Omega \cdot \text{cm}$ - $1.0 \times 10^{14} \Omega \cdot \text{cm}$, and said volume resistivity Ra2 of said second absorption layer disposed above said first absorption layer is within the range of $1.0 \times 10^8 \Omega \cdot \text{cm}$ - $1.0 \times 10^{12} \Omega \cdot \text{cm}$, and wherein said volume resistivity Ra1 is larger than said volume resistivity Ra2 ($Ra1 > Ra2$).

4. (Original) The absorption belt according to claim 2, wherein said volume resistivity Ra1 of said first absorption layer directly disposed on each of said electrodes is within the range of $1.0 \times 10^{11} \Omega \cdot \text{cm}$ - $1.0 \times 10^{14} \Omega \cdot \text{cm}$, and said volume resistivity Ra2 of said second absorption layer disposed above said first absorption layer is within the range of 1.0×10^8

$\Omega\cdot\text{cm} - 1.0 \times 10^{12} \Omega\cdot\text{cm}$, and wherein said volume resistivity R_{a1} is larger than said volume resistivity R_{a2} ($R_{a1} > R_{a2}$).

5. (Original) The absorption belt according to claim 3, wherein a volume resistivity R_i of said insulating layer positioned between said electrodes is $1.0 \times 10^{13} \Omega\cdot\text{cm}$ or more, and a volume resistivity R_b of said base layer is within the range of $1.0 \times 10^{11} \Omega\cdot\text{cm} - 1.0 \times 10^{13} \Omega\cdot\text{cm}$, and wherein the relationship that $R_i \geq R_b > R_{a1} > R_{a2}$ is satisfied.

6. (Original) The absorption belt according to claim 4, wherein a volume resistivity R_i of said insulating layer positioned between said electrodes is $1.0 \times 10^{13} \Omega\cdot\text{cm}$ or more, and a volume resistivity R_b of said base layer is within the range of $1.0 \times 10^{11} \Omega\cdot\text{cm} - 1.0 \times 10^{13} \Omega\cdot\text{cm}$, and wherein the relationship that $R_i \geq R_b > R_{a1} > R_{a2}$ is satisfied.

7. (Original) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) winding a base layer sheet on a core member so that the both ends of said base layer sheet overlap with each other;

(b) winding an insulating layer sheet on said base layer sheet, said insulating layer sheet having a plurality of openings;

(c) disposing an electrode sheet with respect to each of said openings of said insulating layer sheet;

(d) winding a first sheet for an absorption layer on said insulating layer sheet so that the both ends of said first sheet overlap with each other and each electrode sheet is covered with said first sheet;

(e) winding a second sheet for said absorption layer on said first sheet so that the both ends of said second sheet overlap with each other, said second sheet having a volume resistivity R_{a2} smaller than a volume resistivity R_{a1} of said first sheet, a volume resistivity of a resin which is a main ingredient of said second sheet before a control of resistance begin $1.0 \times 10^{16} \Omega \cdot \text{cm}$ or less;

(f) covering a circumferential surface of said second sheet with a cylindrical member; and

(g) thermally joining adjacent sheets and said overlapped portions.

8. (Original) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) winding a base layer sheet on a core member so that the both ends of said base layer sheet overlap with each other;

(b) winding an insulating layer sheet on said base layer sheet, said insulating layer sheet having a plurality of openings;

(c) disposing an electrode sheet with respect to each of said openings of said insulating layer sheet;

(d) winding first sheet for an absorption layer on said insulating layer sheet so that the both ends of said first sheet overlap with each other and each electrode sheet is covered with said first sheet;

(e) winding a second sheet for said absorption layer on said first sheet so that the both ends of said second sheet overlap with each other, said second sheet having a volume resistivity R_{a2} smaller than a volume resistivity R_{a1} of said first sheet, said second sheet including a fluoride resin;

(f) covering a circumferential surface of said second sheet with a cylindrical member; and

(g) thermally joining adjacent sheets and said overlapped portions.

9. (Original) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) winding a base layer sheet on a core member so that the both ends of said base layer sheet overlap with each other;

(b) winding an insulating layer sheet on said base layer, said insulating layer sheet having a plurality of openings;

(c) disposing an electrode sheet with respect to each of said openings of said insulating layer sheet;

(d) winding first sheet for an absorption layer on said insulating layer sheet so that the both ends of said first sheet overlap with each other and each electrode sheet is covered with said first sheet;

(e) winding second sheet for said absorption layer on said first sheet so that the both ends of said second sheet overlap with each other, said second sheet having a volume resistivity R_{a2} smaller than a volume resistivity R_{a1} of said first sheet;

(f) covering a circumferential surface of said second sheet with a cylindrical member; and

(g) thermally joining adjacent sheets and said overlapped portions.

10. (Original) The method according to claim 9, wherein the relationship that $R_i \geq R_b > R_{a1} > R_{a2}$ is satisfied where R_i is a volume resistivity of said insulating layer sheet and R_b is a volume resistivity of said base layer sheet.

11. (Currently Amended) An absorption belt having an absorption surface and capable of absorbing an object on said absorption surface, comprising:

an insulating layer;

a plurality of electrodes embedded ~~arranged~~ alternately with positive and negative in with respect to said insulating layer at a predetermined interval; and

an absorption layer disposed on each of said electrodes and having a volume resistivity different from a volume resistivity of said insulating layer;

wherein said insulating layer and said absorption layer appear alternately on said absorption surface.

12. (Original) The absorption belt according to claim 11, wherein said volume resistivity of said absorption layer is smaller than that of said insulating layer.

13. (Original) The absorption belt according to claim 11, wherein said volume resistivity of said absorption layer is within the range of $1.0 \times 10^8 \Omega \cdot \text{cm}$ - $1.0 \times 10^{14} \Omega \cdot \text{cm}$, and wherein said volume resistivity of said insulating layer is $1.0 \times 10^{13} \Omega \cdot \text{cm}$, and wherein said volume resistivity of said insulating layer is $1.0 \times 10^{13} \Omega \cdot \text{cm}$ or more.

14. (Original) An image forming apparatus for forming an image on a printing medium, comprising the absorption belt according to claim 11 as a means for transferring said printing medium.

15. (Original) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

- (a) winding a base layer sheet on a core member so that the both ends of said base layer sheet overlap with each other;
- (b) winding an insulating layer sheet on said base layer sheet, said insulating layer sheet having a plurality of openings;
- (c) disposing an electrode sheet with respect to each of said openings of said insulating layer sheet;
- (d) disposing absorption layer sheet for covering each electrode sheet with respect to each of said openings of said insulating layer sheet;

(e) covering a circumferential surface of said insulation layer sheet with a cylindrical member; and

(f) thermally joining adjacent sheets and said overlapped portions.

16. (Original) The method according to claim 15, wherein the relation that $R_i \geq R_b > R_a$ is satisfied where R_b is a volume resistivity of said base layer sheet, R_i is a volume resistivity of said insulating layer sheet and R_a is a volume resistivity of said absorption layer sheet.

17. (Currently Amended) An absorption belt having an absorption surface and capable of absorbing an object on said absorption surface, comprising:

an insulating layer;

a plurality of electrodes embedded ~~arranged~~ alternately with positive and negative ~~in with respect to~~ said insulating layer at a predetermined interval; and

an absorption layer disposed on each of said electrodes and having a volume resistivity smaller than a volume resistivity of said insulating layer; and

an under-electrode layer disposed under each of said electrodes and having a volume resistivity smaller than that of said insulating layer but larger than that of said absorption layer;

wherein said insulating layer and said absorption layer appear alternately on said absorption layer, and wherein said insulating layer and said under-electrode layer appear alternately on the opposite surface of said absorption surface.

18. (Original) The absorption belt according to claim 17, wherein said volume resistivity of said absorption layer is within the range of $1.0 \times 10^8 \Omega \cdot \text{cm}$ - $1.0 \times 10^{12} \Omega \cdot \text{cm}$, said volume resistivity of said under-electrode layer is within the range of $1.0 \times 10^{10} \Omega \cdot \text{cm}$ - $1.0 \times 10^{14} \Omega \cdot \text{cm}$, and said volume resistivity of said insulating layer is $1.0 \times 10^{13} \Omega \cdot \text{cm}$ or more.

19. (Original) An image forming apparatus for forming an image on a printing medium, comprising the absorption belt according to claim 17 as a means for transferring said printing medium.

20. (Original) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

- (a) providing an insulating layer sheet having a plurality of openings and disposing an under-electrode layer sheet, an electrode sheet and an absorption layer sheet in each of said openings of said insulating layer sheet in turn;
- (b) temporarily fixing adjacent sheets to each other;
- (c) winding said insulating layer sheet on a core member so that the both ends of said insulating layer sheet overlap with each other;
- (d) covering a circumferential surface of said insulating layer sheet with a cylindrical member; and
- (e) thermally joining adjacent sheets and said overlapped portion.

21. (Original) The method according to claim 20, wherein said volume resistivities of said sheets are selected so that the relationship that $R_i \geq R_1 > R_a > R_e$ is satisfied where R_i is a volume resistivity of said insulating layer sheet, R_1 is a volume resistivity of said under-electrode layer sheet, R_e is a volume resistivity of said electrode sheet, R_a is a volume resistivity of said absorption layer sheet.

22. (Currently Amended) An absorption belt capable of absorbing an object, comprising:

an insulating layer;

a plurality of electrodes arranged alternately with positive and negative with respect to said insulating layer; and

a plurality of feeding terminals, each of said feeding terminals connected with each of said electrodes and disposed on the side of one of longitudinal edges of said belt, said feeding terminals for feeding positive voltage exposed outside of the side of ~~extending towards~~ one of a surface or a back of said belt, said feeding terminals for feeding negative voltage exposed outside on the side of ~~extending towards~~ the other of said surface or said back of said belt.

23. (Original) An image forming apparatus for forming an image on a printing medium, comprising the absorption belt according to claim 22 as a means for transferring said printing medium.

24. (Original) A method for producing an absorption belt capable of absorbing an object, comprising the steps of:

(a) forming a first lamination by laminating a feeding terminal layer sheet and an absorption layer sheet over an electrode sheet and laminating an under-electrode layer sheet under said electrode sheet;

(b) forming a second lamination by laminating said absorption layer sheet over said electrode sheet and laminating said feeding terminal layer sheet and said under-electrode layer sheet under said electrode sheet;

(c) providing an insulating layer sheet having a plurality of openings and alternately disposing said first lamination formed in step (a) and said second lamination formed in step (b) in said openings of said insulating layer sheet;

(d) winding said insulating layer sheet on a core member so that the both ends of said insulating layer sheet overlap with each other;

(e) covering a circumferential surface of said insulating layer sheet with a cylindrical member; and

(f) thermally joining adjacent sheets and said overlapped portions.

25. (Currently Amended) An absorption belt capable of absorbing an object, comprising:

a base layer;

an insulating layer on said base layer;

a plurality of electrodes embedded ~~arranged~~ alternately with positive and negative ~~in~~ with respect to said insulating layer; and

a plurality of layers for directly covering each of said electrodes and said insulating layer, at least two of said layers having different volume resistivities.

26. (Original) The absorption belt according to claim 25, wherein volume resistivities of said plurality of layers disposed on each of said electrodes are set to decrease in accordance with a distance from each of said electrodes.